Cellular Immunology

AN INTERNATIONAL JOURNAL

EDITOR-IN-CHIEF: H. Sherwood Lawrence

Volume 157, 1994

ACADEMIC PRESS, INC.
Harcourt Brace & Company
San Diego New York Boston
London Sydney Tokyo Toronto

Copyright © 1994 by Academic Press, Inc.
All Rights Reserved

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the copyright owner.

The appearance of the code at the bottom of the first page of an article in this journal indicates the copyright owner's consent that copies of the article may be made for personal or internal use, or for the personal or internal use of specific clients. This consent is given on the condition, however, that the copier pay the stated per copy fee through the Copyright Clearance Center, Inc. (222 Rosewood Drive, Danvers, Massachusetts 01923), for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. This consent does not extend to other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale. Copy fees for pre-1994 articles are as shown on the article title pages; if no fee code appears on the title page, the copy fee is the same as for current articles.

0008-8749/94 $6.00

MADE IN THE UNITED STATES OF AMERICA

This journal is printed on acid-free paper.

Contents of Volume 157

NUMBER 1, AUGUST 1994

ELMER BRUMMER AND DAVID A. STEVENS. Anticryptococcal Activity of Macrophages: Role of Mouse Strain, C5, Contact, Phagocytosis, and L-Arginine 1

SUSAN L. KIRSHNER, YAEL KATZ-LEVY, ITZHAK WIRGUIN, ZOHAR ARGOV, AND EDNA MOZES. Fine Specificity of T Cell Lines and Clones That Are Capable of Inducing Autoimmune Manifestations in Mice 11

MEIKE KOESLING, ORTWIN ROTT, AND BERNHARD FLEISCHER. Macrophages Are Dispensable for Superantigen-Mediated Stimulation and Anergy Induction of Peripheral T Cells *in Vivo* 29

A-C. JAROUSSEAU, G. THIBAULT, P. REVERDIAU, A-M. RODRIGUEZ, M. LACORD, J. DE RUSSE, H. WATIER, D. DEGENNE, Y. LEBRANCHU, Y. GRUEL, P. LE BOUTEILLER, AND P. BARDOS. Adhesive Properties of Choriocarcinoma Cells toward Lymphocytes Activated or Not by Interleukin-2 38

SUNG-TAE YEE, TAKUMA KATO, TOSHIKI TAMURA, AND HIDEO NARIUCHI. Different Requirements of CD3 Cross-Linkage for the Activation of Memory and Naive $CD8^+$ T Cells 48

YUKO ABE, MANAMI YUASA, YOSHIO KAJIWARA, AND MASAMICHI HOSONO. Defects of Immune Cells in the Senescence-Accelerated Mouse: A Model for Learning and Memory Deficits in the Aged 59

MICHEL DENIS. Interleukin-1 (IL-1) Is an Important Cytokine in Granulomatous Alveolitis 70

ADORJAN ASZALOS, P. SCOTT PINE, JAMES L. WEAVER, AND PATRICIA E. RAO. Cytochalasin D Modulates CD4 Crosslinking Sensitive Mitogenic Signal in T Lymphocytes 81

ANITA S.-F. CHONG, IAN A. BOUSSY, XINGLI JIANG, MARLENE LAMAS, AND LLOYD H. GRAF, JR. CD54/ICAM-1 Is a Costimulator of NK Cell-Mediated Cytotoxicity 92

SIGRID KLEIN AND ANDREAS RADBRUCH. Inhibition of Class Switch Recombination in Plasma Cells 106

PHILIP J. MORRISSEY, HILARY MCKENNA, MICHAEL B. WIDMER, STEVE BRADDY, ROB VOICE, KEITH CHARRIER, DOUGLAS E. WILLIAMS, AND JAMES D. WATSON. Steel Factor (c-kit Ligand) Stimulates the *in Vitro* Growth of Immature $CD3^-/CD4^-/CD8^-$ Thymocytes: Synergy with IL-7 118

RICHARD P. CIAVARRA AND BRUCE TEDESCHI. Priming Antiviral Cytotoxic T Lymphocytes: Requirement for $CD4^+$ Cells Is Dependent on the Antigen Presenting Cell *in Vivo* 132

MORIO NAGIRA, TOSHIO IMAI, IZUMI ISHIKAWA, KEN-ICHIRO UWABE, AND OSAMU YOSHIE. Mouse Homologue of C33 Antigen (CD82), a Member of the Transmembrane 4 Superfamily: Complementary DNA, Genomic Structure, and Expression 144

RICHARD G. BRYAN, YONGQIN LI, R. KATHERINE TOTTEN, MAI VAN, TSE-HUA TAN, AND ROBERT R. RICH. Long-Term Inositol Phosphate Release, but Not Tyrosine Kinase Activity, Correlates with IL-2 Secretion and NF-AT Induction in Anti-CD3-Activated Peripheral Human T Lymphocytes 158

STEVEN M. DUBINETT, MIN HUANG, ALAN LICHTENSTEIN, WILLIAM H. MCBRIDE, JIANYI WANG, GERALD MARKOVITZ, DAVID KELLEY, WAYNE W. GRODY, LEAH E. MINTZ, AND SHAWKAT DHANANI. Tumor Necrosis Factor-α Plays a Central Role in Interleukin-2-Induced Pulmonary Vascular Leak and Lymphocyte Accumulation 170

M. GRAZIA CIFONE, CLAUDIO FESTUCCIA, LUISA CIRONI, GIOVANNI CAVALLO, MARIA A. CHESSA, VALTER PENSA, EZIO TUBARO, AND ANGELA SANTONI. Induction of the Nitric Oxide-Synthesizing Pathway in Fresh and Interleukin 2-Cultured Rat Natural Killer Cells 181

FOROOZAN MOKHTARIAN, YONG SHI, PEI-FANG ZHU, AND DAVID GROB. Immune Responses, and Autoimmune Outcome, during Virus Infection of the Central Nervous System 195

LOU ANN EADER, LUCA GUSELLA, LINDA DORMAN, AND HOWARD A. YOUNG. Induction of Multiple Cytokine Gene Expression and IRF-1 mRNA by Flavone Acetic Acid in a Murine Macrophage Cell Line 211

D. B. DAY, N. A. ZACHARIADES, AND L. R. GOODING. Cytolysis of Adenovirus-Infected Murine Fibroblasts by IFN-γ-Primed Macrophages Is TNF- and Contact-Dependent 223

VÉRONIQUE FLAMAND, VINCENT DONCKIER, DANIEL ABRAMOWICZ, MICHEL GOLDMAN, PETER VANDENABEELE, JACQUES URBAIN, MURIEL MOSER, AND OBERDAN LEO. *In Vivo* Immunosuppression Induced by a Weakly Mitogenic Antibody to Mouse CD3: Evidence That Induction of Long-Lasting *in Vivo* Unresponsiveness Requires TcR Signaling 239

3 827HI XL 1312
12/94 31249-203

TAI-JUNE YOO, MY-KYUNG LEE, YOON S. MIN, HUEY-JENN CHIANG, KAI WANG, TATSUYA FUJIYOSHI, TETSUO WATANABE, MARC S. KRUG, JEROME SEYER, AND KUANG-CHUAN CHENG. Epitope Specificity and T Cell Receptor Usage in Type II Collagen Induced Autoimmune Ear Disease ... 249

H. KONRAD MULLER, CORAZON D. BUCANA, MARGARET L. KRIPKE, PATRICIA A. COX, SHINOBU SAIJO, AND FAITH M. STRICKLAND. Ultraviolet Irradiation of Murine Skin Alters Cluster Formation between Lymph Node Dendritic Cells and Specific T Lymphocytes ... 263

KATHERINE M. SORENG, JOSEPH C. MOORE, MELANIE A. SHERMAN, AND PETER E. JENSEN. Requirement for Protein Synthesis in Antigen Processing by B Cells ... 277

STEPHEN J. OLIVER, MONA LISA BANQUERIGO, AND ERNEST BRAHN. Suppression of Collagen-Induced Arthritis Using an Angiogenesis Inhibitor, AGM-1470, and a Microtubule Stabilizer, Taxol ... 291

SHORT COMMUNICATIONS

LAURENS N. RUBEN, JENNIFER C. RAK, RACHEL O. JOHNSON, STANLEY SHIIGI, AND RICHARD H. CLOTHIER. A Comparison of the Effects of Human rIL-2 and Autologous TCGF on *Xenopus laevis* Splenocytes *in Vitro* ... 300

JOEL N. BLANKSON AND STEPHEN S. MORSE. The CD28/B7 Pathway Costimulates the Response of Primary Murine T Cells to Superantigens as Well as to Conventional Antigens ... 306

ANNOUNCEMENT ... 313

PAPERS TO APPEAR IN FORTHCOMING ISSUES ... 314

NUMBER 2, SEPTEMBER 1994

IN MEMORIAM

H. SHERWOOD LAWRENCE. Thomas G. Wegmann (1941–1994) ... 317

TRIBUTE

THOMAS J. GILL III. Thomas G. Wegmann ... 318

REGULAR ARTICLES

STEFAN HEIDENREICH, TOBIAS KUBIS, MICHAEL SCHMIDT, AND WOLFGANG FEGELER. Glucocorticoid-Induced Alterations of Monocyte Defense Mechanisms against *Candida albicans* 320

GÉRARD CHAOUAT. Synergy of Lipopolysaccharide and Inflammatory Cytokines in Murine Pregnancy: Alloimmunization Prevents Abortion but Does Not Affect the Induction of Preterm Delivery ... 328

MARIE-DOMINIQUE FRANCO, JACQUES NUNÈS, JEAN-PHILIPPE BOURSIER, JEAN IMBERT, CLAUDE MAWAS, ORESTE ACUTO, AND DANIEL OLIVE. Regions of the CD8 Molecule Involved in the Regulation of CD2-Mediated Activation ... 341

ZENG-YU WANG, HANS LINK, ÅKE LJUNGDAHL, BO HÖJEBERG, JOANNE LINK, BING HE, JIAN QIAO, ARTHUR MELMS, AND TOMAS OLSSON. Induction of Interferon-γ, Interleukin-4, and Transforming Growth Factor-β in Rats Orally Tolerized against Experimental Autoimmune Myasthenia Gravis ... 353

HIDETO TAKAHAMA, ZOLTAN OVARY, AND SHUICHI FURUSAWA. Murine IgG1 and IgE Memory B Cells ... 369

WILLIAM STOHL, JULIE E. ELLIOTT, HUA WANG, YUAN-GUANG LIN, AND DAVID A. HORWITZ. Enhancing Effects of Interleukin 2-Treated Peripheral Blood Mononuclear Cells on Subsequent B Cell Differentiation ... 381

XIAOCHU DUAN, MELISSA ACKERLY, ERIC VIVIER, AND PAUL ANDERSON. Evidence for Involvement of β-Glucan-Binding Cell Surface Lectins in Human Natural Killer Cell Function 393

FEI SONG, GORO MATSUZAKI, MASAO MITSUYAMA, AND KIKUO NOMOTO. The Role of B Cells in *in Vitro* Induction of IFN-γ-Producing $CD4^+$ T Cells Specific to *Listeria monocytogens*: Positive and IL-10-Mediated Negative Regulation ... 403

BRYAN FISK, BRAD CHESAK, MARILYN S. POLLACK, J. TAYLOR WHARTON, AND CONSTANTIN G. IOANNIDES. Oligopeptide Induction of a Cytotoxic T Lymphocyte Response to HER-2/Neu Proto-oncogene *in Vitro* ... 415

ANNA MARIA PORRINI AND ANTHONY T. REDER. IFN-γ, IFN-β, and PGE_1 Affect Monokine Secretion: Relevance to Monocyte Activation in Multiple Sclerosis 428
LEONILDA M. B. SANTOS, AHMAD AL-SABBAGH, ANA LONDONO, AND HOWARD L. WEINER. Oral Tolerance to Myelin Basic Protein Induces Regulatory TGF-β-Secreting T Cells in Peyer's Patches of SJL Mice 439
LUCIA MEDA, SARA GASPERINI, MIROSLAV CESKA, AND MARCO A. CASSATELLA. Modulation of Proinflammatory Cytokine Release from Human Polymorphonuclear Leukocytes by Gamma Interferon 448
ANTONIO JURETIC, GIULIO C. SPAGNOLI, KONRADE VON BREMEN, HEIDI HÖRIG, LUIS FILGUEIRA, URS LÜSCHER, RETO BABST, FELIX HARDER, AND MICHAEL HEBERER. Generation of Lymphokine-Activated Killer Activity in Rodents but Not in Humans Is Nitric Oxide Dependent 462
KENJI ITOH, TETSUFUMI INOUE, KOJI ITO, AND SHUNSEI HIROHATA. The Interplay of Interleukin-10 (IL-10) and Interleukin-2 (IL-2) in Humoral Immune Responses: IL-10 Synergizes with IL-2 to Enhance Responses of Human B Lymphocytes in a Mechanism Which Is Different from Upregulation of CD25 Expression 478
KEVAN C. HEROLD, VAIVA VEZYS, ANDREW GAGE, AND ANTHONY G. MONTAG. Prevention of Autoimmune Diabetes by Treatment with Anti-LFA-1 and Anti-ICAM-1 Monoclonal Antibodies 489
E. BLASI, L. PITZURRA, M. PULITI, R. MAZZOLLA, R. BARLUZZI, S. SALEPPICO, AND F. BISTONI. Different Events Involved in the Induction of Macrophage Tumor Necrosis Factor by *Candida albicans* and Lipopolysaccharide 501
GARY J. BRENNER, NICHOLAS COHEN, AND JAN A. MOYNIHAN. Similar Immune Response to Nonlethal Infection with Herpes Simplex Virus-1 in Sensitive (BALB/c) and Resistant (C57BL/6) Strains of Mice 510
H. HANK SIMMS AND R. D'AMICO. Regulation of Intracellular Polymorphonuclear Leukocyte Fc Receptors by Lipopolysaccharide 525

SHORT COMMUNICATIONS

JAMES E. RIGGS, FRANK P. MAURIO, LISA G. PRIOR, GARY R. SIRKEN, AND MONTE V. HOBBS. The Autologous Mixed Lymphocyte Response: Delayed T Cell Tolerance to B Cells in XID Mice 542
VLADIMÍR HOLÁŇ, TAO DAO, MARCELA KOSAŘOVÁ, MARIE LIPOLDOVÁ, AND JUN MINOWADA. Interleukin-1 and Interferon-α Augment Interleukin-2 (IL-2) Production by Distinct Mechanisms at the IL-2 mRNA Level 549

ANNOUNCEMENT 556

PAPERS TO APPEAR IN FORTHCOMING ISSUES 557

AUTHOR INDEX FOR VOLUME 157 560

NOTICE

The Subject Index for Volume 157 will appear in the December 1994 issue as part of a cumulative index for the year 1994.